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## UNSED POSSIBILITIES IN RELATIONS WITH FRANCE

Bulg. SOFTA NEWS in English 22 Apr 81 p 2

[Article by Ekaterina Mihailova]

## [Text]

One of the most characteristic features of Bulgaria's economic development during the Eighth Five Year plan period (1981-1985) is the country's ever more active participation in the international division of labour. Foreign trade in 1985 will be 40 per cent up on that in 1980, when it will reach nearly 20,000 million dollars.

France is one of the countries with which Bulgaria is strengthening and expanding cooperation. The Joint Bulgarian French Committee for Economic, Industrial and Technical Cooperation, set up in 1976 at ministerial levels, includes 12 big French firms and 11 Bulgarian foreign trade organisations. This Committee has been yielding positive results. During a recent visit to Bulgaria, the Co-Chairman of the Committee Lucien Sajus stressed that the organisation aimed at improving and expanding the forms of joint ventures between the two countries. Expressing the opinion of French business circles, he noted that in the past two years Bulgaria and France had passed over from purely

commercial ties to industrial cooperation. Additional prospects of expanding production and trade were created by Decree 535 of the Bulgarian State Council of March 25 1980. It facilitates mutual contacts and provides good conditions for the transfer of technology.

During their talks in Paris in December 1980, the Bulgarian Foreign Trade Minister Hristo Hristov and his French counterpart Michel Cointal planned steps to activate trade and industrial cooperation between Bulgarian enterprises and French firms. In a meeting, State Secretary Jean Pierre Prouteau and Minister Hristo Hristov devoted special attention to joint ventures with small and medium sized French firms in the construction and modernisation of enterprises turning out consumer goods.

During his visit to France late in 1980, the President of the Bulgarian Industrial Economic Association Oryan Doinov, and the President of the Bulgarian Chamber of Commerce and Industry Peter Roussov held meetings with the French Economy Minister Rene

Monory, the State Secretary Olivier Stern, and the President of the National Council of French Industrialists François Seyrac. The French side expressed keen interest in cooperating in chemistry, metallurgy, heavy machine building, the pharmaceutical industry and in joint ventures in third countries.

These meetings and talks were useful considering the present state of bilateral trade, which amounted to 239 million convertible levs in 1980, an increase of 30 per cent over 1979.

Bulgarian-French scientific and technical cooperation is developing on the basis of three year programmes of scientific and technical exchange. There has been a certain activation in recent years. Joint development<sup>12</sup> in animal husbandry, wine making, biology and chemistry result in a considerable economic benefit.

Real opportunities are at hand for a mutually beneficial development of economic ties between Bulgaria and France. These, however, have still to be used to the full. There are enormous reserves for greater Bulgarian exports

to France and French exports to Bulgaria, hence for substantially expanding mutual trade. What is necessary to this effect is to eliminate all obstacles in the way of increasing the export of Bulgarian machinery to France. Products of the machine building, electronics and electrical engineering industries are the most dynamic section in this country's exports and have long topped 40 per cent of its total volume. The proportion of these products in French exports to Bulgaria in 1980 reached a bare 6.6 per cent. This is mainly due to the fact that the competent French authorities make additional technical demands on the export of Bulgarian machine building products. Such demands are not made by the other EEC countries. These artificial difficulties are a major stumbling block for the further promotion of mutually advantageous trade.

Another important reserve for increasing mutual deliveries is industrial cooperation. We have already signed cooperation contracts with such well known firms as Thomson CSF, etc. which is a good start. A lot remains to be done in this respect.

## MEASURES TO REDUCE HAIL DAMAGE IMPLEMENTED

Sofia ROVIA NEWS in English 22 Apr 81 p 2

[Article by Krik Aramov]

[Text]

On a world scale average annual damage caused by hail storms exceeds 2,000 million dollars, although they are shared by a relatively small number of countries. Bulgaria is one of the countries in Europe which are most frequently hit by hailstorms. Scientists and practicals have long been seeking ways and means of combating this natural calamity.

Modern theory and research have shown that an effective way to combat hails is to artificially disperse hail clouds. For this purpose, special rockets are launched which "imbue" the clouds with chemical substances which, in turn, cause the formation of tiny pieces of hail. Reaching the warm part of the atmosphere these pieces melt to such an extent as to not cause any serious, if any, damage to crops.

A special board was set up in Bulgaria ten years ago which has at its disposal several firing ranges and sites situated in intensive agricultural regions.

For years, from April to September during the active

hailstrom season - atmospheric processes have been the object of observation. Twenty four hours a day radio location stations watch the skies and transmit information to the command posts.

Bulgarian specialists use Soviet methods developed at the Institute of Geophysics at the Georgian Academy of Sciences. With it, and by means of modern technological equipment, also supplied by the USSR, losses caused by hailstorms to plant growing have been significantly reduced. Besides the range of the Hydrology and Meteorology Chief Direction, the Bulgarian Academy of Sciences, there are special ranges in the districts of Vidin, Mihailovgrad, Vratsa, Pazardjik, Plovdiv and Sliven, which protect a total of 1.3 million hectares of land of which 860,000 hectares are arable. The beneficial effect in combating this natural disaster is already about 60 per cent. During the current Five Year Plan period (1981-1985) technical equipment will be reconstructed and modernised. New radio location meteorological equipment will also be introduced.

NUCLEAR ENERGY DEVELOPMENT TO EXPAND DESPITE PUBLIC MISGIVINGS

West German Commentary

West Berlin DER TAGESSPIEGEL in German 3 Apr 81 p 3

[Article by Michael Mara: "GDR Fully Committed to Nuclear Energy--SED Sees No Reason for Discussions on Safety of Soviet Reactors." A translation of the Rostock OSTSEE-ZEITUNG item, cited below, follows this commentary]

[Text] How safe are nuclear power plants? This question, which is highly controversial in the West, has of late also been under discussion among the GDR population. Voices can be heard about the increasing concern over the "forced development of nuclear energy" in the GDR and possible risks that might result, particularly among inhabitants of those areas where nuclear energy plants are in operation or under construction.

To be sure, in past years Eastern media tried everything to prevent a spread to the GDR of the "Brokdorf bacillus": Consequently, they dismissed objections voiced by Western citizens' initiatives as being "unfounded", and they practically omitted from coverage the spectacular actions of those groups. The GDR media are also providing little information on their own nuclear power plant construction. Disturbances are even less of a topic.

Nevertheless, the uneasiness seems to grow among the population concerning nuclear power facilities. It is related to the extensive coverage of all these problems by Western radio and television stations. The pros and cons of nuclear power in the FRG are followed closely in the GDR and it is a reason why debates on the safety of its own nuclear power plants are taking place more frequently than was the case in the past, and as a result inquiries are directed at the media.

This fact has now been indirectly confirmed by Rostock's OSTSEE-ZEITUNG; the Lubmin nuclear power plant (near Greifswald) operates in the area where this paper appears. In a commentary, under the heading "Answer to Question", the party paper explains that there is "no reason at all for discussions about the peaceful use of nuclear energy" in the GDR and the other socialist states.

At the same time the paper lectured to nuclear energy opponents in the West. To be sure, they respected the concern of those citizens who, "based on their experiences", distrusted the energy monopolies and who were justified in their fears

that the safety precautions required for nuclear energy are "falling victim to the desire for profit". Nevertheless, the supporters of the movement should ask themselves "whether it would not be better for them to use their strength and activities to guard against nuclear armament and a nuclear war". Because the danger to mankind does "not" arise "from the peaceful use of nuclear energy but from the accumulation and stationing of nuclear weapons". These things must be fought, the party paper told Western nuclear power opponents.

Otherwise the OSTSEE-ZEITUNG affirmed the position that for economic reasons the GDR could not bypass nuclear energy. To be sure, brown coal is still the most important energy carrier but reserves will be exhausted in the foreseeable future, aside from the fact that it is basically too good to be used as a fuel, "because it leads to a loss of valuable components that could be used for refining, for instance, important chemical products".

The OSTSEE-ZEITUNG continued by stating that an annual savings of 15 million tons of raw brown coal has already been achieved by nuclear energy plants operating in the GDR, and they were producing electric energy "cheaper than conventional steam power plants". They are operating "under reliable conditions, employing an indisputably safe technology". International control agencies (the paper does not name the ones it is referring to) had confirmed that the GDR had "instituted comprehensive and careful safety precautions", the observance of which are "constantly monitored".

Western experts, on the other hand, rendered very critical judgment on Soviet reactor types and the safety precautions on several occasions. Scientists at the University of Bremen, for instance, conducted a study and came to the conclusion that safety standards at GDR installations are significantly lower than in the West and that they were inadequately equipped for an accident. Skepticism about Eastern nuclear power facilities has also been voiced in Scandinavia.

As a matter of fact, according to Professor Keil of the Academy of Sciences, the GDR's long-range plan is to produce electric energy exclusively in nuclear power plants. He states that the last coal power plant in the GDR will be constructed no later than during the next decade. Following the turn of the millennium, coal is to be replaced altogether as an energy carrier and to be used exclusively in industry for its components. According to Keil, the date when this will happen depends, first of all, on how fast nuclear energy production can be increased. In the process, the GDR cannot permit demonstrations like the one in Brokdorf and there will "not be any because every child in this country knows that nothing will run without nuclear energy", a GDR functionary told a Westerner during a conversation at the Leipzig Spring Fair.

#### SED Daily's Justification

Rostock OSTSEE-ZEITUNG in German 24 Mar 81 p 5

[ 'Answer to Questions' feature article by W. W. addressed to Uwe Hardt, Greifswald: "What Prospects Does the Application of Nuclear Energy Have?" ]

[Text] Nuclear energy occupies an important place in our total economic picture. There are several reasons: First of all, we still have at our disposal abundant

deposits of brown coal; nevertheless, within a few years they will also be exhausted. Second, brown coal is basically too good to be used as fuel, because it leads to the loss of valuable components for the refinement, for instance, of important chemical products. And third, the enormous price increases and the scarcity of petroleum and natural gas on international markets force us--like all the other industrial countries--to make greater use of energy sources that are independent of these substances.

At the present time 11 percent of our electric energy is produced in nuclear energy plants. (As a comparison: In Sweden it was 25 percent in 1980, in Japan 13 percent, in the United States and England 10 percent.) Plans are to continue the expansion of electric energy production based on nuclear energy until 1985. The capacity of the Lubmin nuclear energy plant, for instance, is to be doubled. At the present time it is 1,760 MW (4 x 440 MW reactors). Preparations are also in progress to construct a new nuclear energy plant near Stendal, where Soviet reactors with a capacity of 1,000 MW are to be installed.

Annually 15 million tons of raw brown coal are being saved by nuclear energy plants operating in this country, and these power plants are producing electric energy more cheaply than conventional steam power plants. All these factors support the concept of nuclear energy, which has become an indispensable part of our everyday economic life--as is the case with 20 other countries in the world.

In the USSR, in our republic and in other socialist states, these economic calculations and considerations are very closely related to all those questions that are connected with safety and the protection of man and the environment. The best proof is the fact that the nuclear power plants from the USSR are operating under reliable conditions, employing an indisputably safe technology. International control agencies confirmed that we have instituted comprehensive and careful safety precautions, the observance of which is constantly monitored by a central institution, the State Office for Nuclear Safety and Protection Against Radiation.

We certainly respect the concern voiced by numerous citizens in capitalist countries who joined the so-called "antinuclear energy movement". Based on their experiences they distrust energy monopolies, and they are justified in their fears that the safety precautions required for nuclear energy are falling victim to the desire for profit.

Nevertheless, the supporters of this movement should ask themselves whether it would not be better for them to use their strength and activities to guard against nuclear armament and a nuclear war. The danger to mankind, yes--the greatest danger, does not arise from the peaceful use of nuclear energy but from the accumulation and stationing of nuclear weapons. All energies must be directed toward disarmament and, above all, a stop to nuclear armament.

In the Soviet Union, the GDR and the socialist states there is no need at all to discuss the peaceful use of nuclear energy. Even in the case of nuclear energy, the socialist state always acts in the interest and for the protection of its citizens--in accordance with the basic concepts of our socialist order.

FIRST QUARTER DOMESTIC TRADE RESULTS FOR 1981 REPORTED

Budapest MAGYAR NEMZET in Hungarian 7 May 81 p 7

[Text] According to a news brief by the Ministry of Domestic Trade, this year's first quarter gross sales in retail trade amounted to 81.9 billion Forints, representing a 7.6 percent increase in current prices compared to the similar period last year. Demand for foodstuffs dropped slightly, particularly in March. The supply of meat, meat products and poultry--with the exception of giblets--was satisfactory; the supply of dairy products and eggs was even and good. Demand, however, for fish was not satisfied and only a poor selection was offered in packaging material and in flour products. Vegetable and potato reserves, and the appearance of new potatoes on the market allowed for favorable market conditions. With the exception of foam dispensers and imported cosmetics, a large assortment of household goods and chemical products were offered.

The improvement in the weather stimulated demand for clothing products--the March sales figure exceeded that of last March by 12.7 percent. The supply of cotton, cotton-type materials and jersey cloth was also good. Shortages, however, occurred in the assortment of worsted wool materials, women's wear and ensembles. Supplies in knitwear, nightgowns, pajamas and in certain items of baby clothing still did not meet expectations. There is a continued shortage in needlework yarn, sewing needles and zippers. The list of items in short supply has been somewhat reduced in the category of industrial consumer products. The supply of bathroom fixtures, garden tools, washing machines, dryers, oil heaters and black-and-white TV sets was particularly good. Bolts, padlocks and enamelware, however, were still in short supply, and certain categories of small household appliances and less expensive tape recorders were still missing.

More and better furniture reached the marketplace, but while improvement occurred in the availability of paper and office supplies, the assortment still proved to be inadequate in sporting goods and toys. Household fuels, coal and briquets, albeit in a limited choice are stored in sufficient quantities. There was a general excess supply in construction materials--with stocks in some categories exceeding last year's levels--but the assortment was inadequate in small bricks, tiles and glazed floor covering.

CSO: 2590/247

SOCIOECONOMIC PLAN FOR 1978 REPORTED

WARSAW MONITOR POLSKI in Polish No 34, 21 Dec 77, Item 161, pp 256-256

[Resolution of the Sejm of the Polish People's Republic, dated 17 December 1977, on the National Socioeconomic Plan for 1978]

[Text] The Sejm of the Polish People's Republic,

being guided by the tasks of the country's further socioeconomic development, while insuring the continuity of the developmental strategy indicated in the resolutions of the Sixth and Seventh Congresses of the Polish United Workers Party,

keeping in mind the progress achieved in accomplishing the goals and tasks during the 2d year of the current five-year period,

taking into account the resolutions of the Ninth Plenum of the Central Committee, Polish United Workers Party, concerning the decision "for greater effectiveness in management, for the better satisfaction of the needs of working people,"

taking into consideration the current internal and external conditions for the development of the country,

resolves that the basic directions of action in 1978 will be the following:

I) further progress in carrying out social goals adapted to the national economy's capabilities, especially the continuation of the process of improving the society's living conditions. In particular:

• rise in wages, the real income of the population, and improvement in the market supply of goods and services,

• development of housing construction and municipal construction, as well as the construction of cultural and social facilities, including hospitals, out-patient clinics, nurseries, and preschools,

improvement in working conditions,

2) deepening of structural changes in industrial production, expressed particularly in:

an expansion of production designated for the market and for export and a reduction of production for investment purposes,

better adaptation of the assortment structure of production to meet the needs of consumers,

development of various sorts of small manufacturing to enrich the market with craftsmen's goods and services,

3) expansion of management efficiency, especially by

improving production quality,

reducing prime costs,

reducing unit consumption of basic and auxiliary materials in the production and nonproduction sphere, for example, by updating standards for the consumption of materials in adapting to the economy's technical level and by increasing the discipline for adhering to them,

improving the coproduction relationships and strengthening responsibility in carrying out coproduction contracts,

upgrading the organization of work, employment management, and the effectiveness of utilization of working time,

4) reducing the share of investment outlays in the national income and structural changes in the investment program, especially by:

reducing the level of investment outlays in comparison to 1977,

insuring that investment outlays give priority to housing construction and the food economy,

reducing the investment front by cutting the number of newly-begun investments, in order to insure that the tangible-assets program is carried out,

5) creating conditions to insure the defense-preparedness of the country and public security.

In order to carry out the socioeconomic tasks for the country's development, the following basic targets and ratios of the 1978 plan are established, and wherever future resolutions speak of the percentage of growth in 1978, this is to be understood to mean in comparison to the projected fulfillment of the plan in 1977.

## I. National Income

1. The basic factor underlying the assurance of the achievement of the social goals envisioned should be the further expansion of material production, especially in socialized industry, agriculture, construction, transportation, and communications, and programs to management effectiveness, particularly in the thrifty consumption of raw materials and other materials, fuel, and power.

2. It is envisaged that generated national income should rise by 5.4 percent, and that income for distribution will rise by 3.9 percent, which fact should insure a rise in the consumption fund of 3.6 percent. The share of net investment outlays in national income should amount to about 24 percent.<sup>1</sup>

## II. Standard of Living of the Society

It is envisaged that further progress will occur in improving the society's living conditions, as expressed in the following:

1) a rise in the population's cash income and social benefits,

2) an improvement in the market supply of goods and services,

3) further development of the social infrastructure, especially housing construction.

### A. Cash Income of the Population and Social Services

1. It is estimated that the population's cash income will approximate 1,327 billion zlotys, which is an increase of 6.6 percent.

2. Payments from the payroll fund, taking into account the projected rise in expenses and the rise in earnings, will amount to 764 billion zlotys, which means a rise of 4.1 percent.

3. It is projected that the population's cash income from social benefits will reach a level of about 152 billion zlotys, which means a rise of about 2.2 percent, including pension and annuity payments, which will exceed 105 billion zlotys, and will be about 24 percent higher.

4. The total payroll and social benefits fund will amount to 916 billion zlotys, which means a rise of 6.7 percent.

5. The rise in the mean real wage in the socialized economy is set at 1.8 percent. The mean nominal net wage in the socialized economy will increase by 2.8 percent, and in industry, by 3.1 percent.

6. It is estimated that the agricultural population's cash income from sales of farm products to the state should approximate 238 billion zlotys, an increase of 7.5 percent.

## B. Market Supply of Goods and Services

1. It is envisaged that goods will be delivered to supply the market in quantities appropriate to meet the rising level of income and in assortments adapted to the needs of the population, and that there will be a gradual elimination of the tensions and periodically occurring shortages of certain goods.

2. The value of deliveries of goods to the market should total at least 1,756 billion zlotys, which means that it should increase by 9.8 percent, including a rise in the deliveries of foodstuffs and condiments of 8.2 percent and a rise in the other nonfood items of 10.9 percent. The market supply of foodstuffs should be enriched by employing all sorts of production reserves and by better management of raw materials and other materials.

3. Deliveries from domestic production and imports to supply the market with goods from the various branches of industry should be increased as follows:

- 1) food industry -- 7.6 percent,
- 2) light industry -- 9.2 percent,
- 3) building materials industry -- 8.1 percent,
- 4) timber and paper industry -- 9.8 percent,
- 5) chemical industry -- 8.9 percent,
- 6) electrical machine industry -- 10.6 percent,
- 7) whiteware ceramics industry and glass industry -- 13.5 percent.

4. In order to adapt the assortment structure of production to the needs of the population, full advantage should be taken of the production and raw-materials-supply capacity of all economic organizations, and cooperation between the commercial sector and producers at all levels of management should be improved. In particular, there should be agreements and control over the sizes of deliveries of goods supplied to provide for the domestic market in three groups of assortments controlled by the Council of Ministers, by the ministries of producers and the ministry of domestic trade, and by appropriate industrial associations or enterprises and commercial organizations.

5. Conditions should be insured for the effective functioning of the commercial sector in towns and rural areas and for the effective use of committed resources and personnel.

6. Provision should be made to insure a rise in services the population plan, for mounting to 13 percent, and at the same time there should be an improvement in quality, timeliness, and the culture of service. In particular, the development of consumer services should be accelerated, and the value should increase by more than 19 percent. The value of craftsmen's services should rise by more than 22 percent. There is also envisaged the modernization of the technical base and the further develop-

ment of back-up, with priority given to the development of consumer services, to insure that they have a high rate of growth.

#### C. Housing and Municipal Economy

1. It is anticipated that the rise in usable floor-space of dwellings completed and signed over for use will reach 10.3 percent, which is the rate set for 1978 in the five-year plan for 1976-1980, including both the continuation of the basic program approved at the Seventh Congress of the Polish United Workers Party for the construction of 1,525,000 dwellings and the additional task of 50,000 dwellings. This means obtaining usable space of between 18.5 million and 19.1 million square meters, depending on the fulfillment of the 1977 plan. The Council of Ministers will define the ultimate sizes of the housing construction tasks for 1978 on the basis of the sizes achieved in 1977.

2. Alongside the execution of quantitative tasks, we should insure substantial improvement in the quality of the dwellings built and pay particular attention to their careful finishing. It is essential to combat effectively any further rise in the costs of socialized housing construction.

3. Alongside the dwellings completed in housing developments, we should begin to complete a total usable area of 425,000 square meters for commercial, restaurant, service, and other facilities.

4. Efforts should be made to expand the population's share in meeting housing needs out of their own funds. In this connection there should be an increase in the number of cooperative condominiums, and assistance should be given to the development of private housing construction, especially in small towns and rural areas.

5. Further improvement should be provided in the supply of water and heat to the towns through the development of municipal facilities and their better utilization, as well as improvement in the operation of urban transportation. Developed land should be prepared in advance as necessary to carry out the program of housing construction in 1979-1980.

#### D. Education, Culture, Public Health, Tourism and Recreation

1. There should be a continuation of the reform in the system of national education, and, especially a further expansion of the scope of preschool upbringing, particularly for children 6 years old, the qualifications of teaching personnel should be raised to a higher level, the material base should be expanded, and there should be further development of the network of consolidated gminy (parish district) schools, and adaptation of study aids and textbooks for the new curriculum.

4. It is envisaged that the number of children in preschools, preschool departments of elementary schools, and preschool centers at these schools will increase to about 1,138,000, which will mean an increase of 6.6 percent, including raising the number of children 6 years old to about 538,000, which means including more than 96 percent of the children of this age in preschool education in towns and rural areas.

5. It is anticipated that in 1978 about 526,000 pupils will graduate from elementary school, with 98.3 percent supposedly continuing their education, including more than 91,000 elementary school graduates going to general high schools and about 426,000 graduates going to vocational schools.

6. In vocational education special emphasis should be placed on the development of personnel for the needs of the food economy, especially for agriculture. The number of pupils accepted into the first year of basic vocational schools in agricultural fields should reach 62,800 persons, which will be an increase of 6.6 percent, and those accepted for the first year of technical schools and post-secondary vocational studies in agricultural fields should reach 41,900 persons, which will mean an increase of 8.3 percent.

7. It is projected that the number of students newly accepted for the first year of daytime college study will amount to 63,000 persons, including more than 8,900 persons in agricultural study. Attention should be given to improving the quality of education, to the constant adjustment of sizes and programs of training to the country's socio-economic needs, and to improving the conditions of instruction in the institutions of higher education and the social conditions of college students.

8. In order to create more beneficial conditions for the development and popularization of cultural activity, better utilization should be insured for the installations already at hand and there should be better further development of the cultural base, printing industry, cinematography, sound recording, and the export of cultural goods, and, in particular, the timely completion of construction of the National Library should be insured. The operation of cultural facilities should be better adapted to the cultural needs of the population.

The ideological and artistic level of radio and television should be raised, and particular attention should be given to the moral value of programs for young people.

9. In the area of public health and social welfare, further improvement in the health care of the society should be provided for, by widening the access to the benefits of public health establishments, especially in the realm of basic health care. Prevention should also be stepped up, and the comprehensive struggle to combat social and vocational diseases should be expanded.

In order to carry out these tasks it is necessary to improve the organizational system of the health service, to make better use of the installations and apparatus in keeping with the conclusions stemming from the review of public health service facilities conducted in 1977, to reduce the time it takes to carry out renovation projects and insure timely execution of health service investments, and also to improve the quality of execution, especially for the installations financed out of the funds of the National Public Health Fund. At the same time better use should be made of medical personnel, with conditions created to even out the imbalances between voivodships.

Hospital operations should be made more efficient, for example, by increasing the number of beds in general hospitals and clinics obtained through the completion of investments and the modernization program, as the result of which the number of beds will increase to about 198,500-200,000, and also through their more rational utilization. The operations should also be expanded in the rural health centers, whose number will increase to 3,171. The number of places in nurseries should be increased by 5.7 percent, that is, to 98,300.

8. Efforts should be continued to expand the range of assistance to the elderly, for example, by further improving environmental care and by increasing the number of places in social welfare establishments. The number of places in social welfare establishments should increase to about 60,000, that is, by 2.2 percent.

9. Further progress is envisaged in the management of national tourism, with special attention given to the needs of private motor-vehicle travel. The number of places in general-access tourist establishments should reach a level of 220,500, which means an increase of about 7.8 percent, including an increase of 4,200 places in hotels, which is an increase of 8.2 percent, and an increase in campgrounds of 5,600 places, which is an increase of 11.4 percent. The number of places in vacation centers should reach a level of 416,000 places, which means an increase of about 5.6 percent.

10. There is to be an increase in the rational administration of vacation facilities, with particular attention given to increasing the utilization rate of the vacation facilities of places of employment. There should be broader development and improvement of local and industrial subbranch coordination in the administration of vacation centers. About 4.5 million persons will be included in employee vacations.

11. The further popularization of sports should be insured, especially among school pupils, and in the realm of competitive-record sports a decision has been made to step up the preparation of personnel to take part in the Olympics in Moscow and in Lake Placid in 1980.

## E. Protection of the Natural Environment, Water Economy

1. Efforts should be made to reduce the adverse influences of production activity on man's natural environment. In factories equipment should be installed to protect the air by reducing pollution emissions of dust in the amount of about 2.9 million tons per year and to reduce gas pollutants by about 200,000 tons per year. Municipal and industrial sewage treatment plants with a total capacity of about 1.1 million cubic meters per day should be build. About 110 million tons of industrial waste should be managed, and about 1,300 hectares of the land of dumping grounds, waste-heaps, and sedimentary ponds should be resultivated.
2. Further improvement should be insured in supplying water to the population and to factories and agriculture, and also in protecting the country from floods. To this end the following should be done: increase production capacity of water intakes by about 3.8 million cubic meters per day, achieve an increase of about 100 million cubic meters in the capacity of reservoirs, provide for the construction or modernization of about 129 kilometers of flood-control levees, and regulate about 908 kilometers of rivers and mountain streams.
3. Provision should be made for execution in full of tangible investments related to environmental protection, including the elimination of the backlogs from 1976-1977.

## III. Material Production

### A. Industry

1. The basic task in industry is to deepen structural changes, in order to achieve maximum growth in production allocated to the supply of the market and to export. The rise overall in industrial production should be adapted to the supply capabilities of raw materials and other materials and coproduced components produced domestically and abroad. Here particular emphasis should be placed on upgrading the quality of goods produced and on improving management effectiveness, especially by updating the materials consumption standards and improving discipline in applying them and also through the improvement of the utilization of working time. There should be optimal management of production capacity. Cooperation ties should be improved. And the discipline of carrying out coproduction agreements should be bolstered.
2. The value of the sales of the production and services of industrial enterprises should reach a level of about 2,922,000,000 zlotys, which means an increase of 6.8 percent. Market production should rise to more than 934 billion zlotys, which is about 10 percent, and export production should rise to about 424 billion zlotys, which is an increase of 10.6 percent.

3. The value of sales of the production and services of industrial enterprises by branch should be as follows:

[Table 1]

in billions of zlotys

(1) Wydział/branża	1978 r.	Wałecznik
		(2) 1978 1977 p.w.
a Przemysł ogólny	1.921,7	106,8
b w tym:		
c — paliwowo-energetyczny	276,9	103,0
d — metalurgiczny	255,3	106,0
e — elektrotechniczny	827,1	108,1
f — chemiczny	281,4	108,1
g — mineralny	105,8	104,5
h — drewno-papierniczy	163,8	108,4
j — lekki	407,0	106,6
k — spożywczy	552,7	106,8

[Key]:

(1) Itemization

(2) Index of 1978/1977 expected fulfillment

(a) Total industry

(b) Breakdown of above

(c) Fuel and power industry

(g) Minerals industry

(d) Metallurgical industry

(h) Timber and paper industry

(e) Electric machinery industry

(j) Light industry

(f) Chemical industry

(k) Food industry

4. Production of the basic industrial goods should reach the levels given in [Table 2 and Table 2a].

[Key to Table 2]

(1) Itemization

(2) Unit of measure

(3) Index 1978/1977 expected fulfillment

(a) Hard coal

(j) Ball bearings

(b) Millions of tons

(k) Billions of zlotys, wholesale price

(c) Electric power

(n) Electric washers and dryers

(d) Billions of kilowatthours

(o) Thousands of units

(e) Natural steel

(p) Automatic electric washers & dryers

(f) Finished rolled products

(q) Home refrigerators and freezers

(g) Thousands of tons

(r) Metal-cutting machine tools

(h) Copper

(s) Plastic-working machine tools

[Table 2]

(1) Wykrojnik	2) jednostka masy	1978 r.	Wskazniki
			3) 1978 1977 p.w.
a) Węgiel kamienny	b) mil ton	192,3	103,3
c) Energia elektryczna	c) mil kWh	115	104,5
e) Stal surowa	b) mil ton	70,1	111,7
f) Wyroby walcowane gotowe	g) tys. ton	12.909	105,7
h) Miedź	g) tys. ton	369	118,0
j) Lutynka torzna	k) mil sl		
	e) zbytu	6,1	106,3
m) Pralki i wózki elektryczne	n) tys. szt.	783	104,3
w tym: automatyczne	n) tys. szt.	260	112,0
o) Chłodzarki i zamrażarki do- mowe	n) tys. szt.	1.010	109,7
p) Obrabarki skrawające do metali	k) mil sl		
	e) zbytu	8,1	105,3
q) Obrabarki do obróbki ples- tycznej	k) mil sl		
r) e) zbytu	1,1	115,3	
s) Maszyny budowlane	g) tys. ton	158,2	101,9
t) Maszyny rolnicze	k) mil sl		
	e) zbytu	17,6	105,8
u) Kombajny rolnicze zbo- gowe	n) tys. szt.	4,1	102,3
v) Urządzenia do automatycznej regulacji i sterowania	k) mil sl		
	e) zbytu	6,2	107,3
w) Samochody osobowe wraz z pośrednictwem	n) tys. szt.	328,5	115,3
x) Ciągniki kolejowe dwuosiowe	n) tys. szt.	69	101,6
y) Statki morskie	n) tys. DWT	822,6	102,9
aa) Maszyny elektryczne wir- ujące	n) tys. szt.	13.770	112,0
bb) Odbiorniki radiofoniczne	n) tys. szt.	2.203	111,3
cc) Odbiorniki telewizyjne	n) tys. szt.	999	103,0
dd) Magnetyfony, dyktafony, magnetowidły	/		
ee) Zestawy radio-magnesofon	n) tys. szt.	910	113,8
ff) Nawozy sztuczne	tys. ton		
hh) Nawozy sztuczne	g) w N <sub>2</sub>	1.575	102,3
	tys. ton		
jj) w P <sub>2</sub> O <sub>5</sub>	1.030	105,1	
kk) Tworzywa sztuczne	mil tys. ton	529	107,0
nn) Włókna chemiczne	pply. ton	255,1	101,6

[Table 2a]

(1) Wyszczególnienie	(2) Jedenotka	1978 r.	Wskazniki (3) 1978 1977 p.w.
a) Cement	v) tys. ton	24.440	110,4
b) Szkło gospodarcze	w) miln. sl.	5.950	117,4
c) Ceramika stołowa	x) miln. sl.	2.467	112,8
d) Tarcica iglasta	y) tys. m <sup>2</sup>	6.300	100,4
e) Meble	z) miln. sl.		
	e. abytu	50,4	113,9
f) Papier i tkanina	v) tys. ton	1.454,7	105,1
g) Tkаниny bawełniane wykonane	aa) miln. m	917,6	98,9
h) Tkaniiny wełniane wykonane	ab) miln. m	128,8	102,8
j) Wyroby drzewiarskie	z) miln. sl.		
	e. abytu	44,6	109,7
k) Namioty turystyczne	bb) tys. szt.	255	107,6
m) Obuwie bez gumowego	cc) miln. par	137,9	105,2
n) Obuwie gumowe i z tworzyw sztucznych	cc) miln. par	32,8	107,2
p) Mięso i przetwory mięsne	v) tys. ton	2.135	111,5
q) Mleko	dd) mil. l	2,5	107,9
r) Sery dojrzewające	v) tys. ton	97	104,3
s) Sery twarogowe	v) tys. ton	180	112,5
t) Masło	v) tys. ton	248	103,3
u) Makaron	v) tys. ton	100	125,3

## [Key]

(1) Itemization

(2) Unit of measure

(3) Index 1978/1977 expected fulfillment

(a) Cement	(q) Milk
(b) Household glassware	(r) Ripened cheese
(c) Ceramic tableware	(s) Cream cheeses
(d) Softwood lumber	(t) Butter
(e) Furniture	(u) Macaroni and spaghetti
(f) Paper and cardboard	(v) thousands of tons
(g) Finished cotton yardage	(w) millions of zlotys
(h) Finished woolen yardage	(x) millions of zlotys
(j) Knitwear	(y) thousands of cubic meters
(k) Tourists' tents	(z) billions of zlotys, sales price
(m) Footwear, excluding rubbers	(aa) millions of meters
(n) Rubber and plastic footwear	(bb) thousands of units
(p) Meat and meat products	(cc) millions of pairs
	(dd) millions of liters

[Key for Table 2, continued]

(s) Construction machinery	(aa) Electric rotary machines
(t) Farm machinery	(bb) Radio receivers
(u) Self-propelled combine-harvesters	(cc) Television sets
(v) Automatic-regulation and steering equipment	(dd) Tape recorders, dictating machines, video-tape recorders
(w) Personal motorcars and related	(ee) Radio-tape-players
(x) Two-axle wheeled tractors	(ff) Nitrogen fertilizers
(y) Ocean-going vessels	(gg) Thousands of tons nitrogen
(z) Thousand deadweight tons	(hh) Phosphorous fertilizers
(kk) Plastics	(jj) Thousands of tons $P_2O_5$
(mm) Thousands of tons	(nn) Synthetic fibers
	(pp) Thousands of tons

B. Agriculture and Forestry

1. In carrying out the basic tasks in agriculture, efforts should be made above all to increase crop and livestock production substantially, and to improve management effectiveness in all sectors by inculcating technical progress and rational use of the resources allocated for the development of agriculture.

2. To this end, the following directions of action are adopted:

- 1) Continuation of the agricultural policy set down jointly by the Polish United Workers Party and the United Peasant Party in the realm of better land use, the development of socialized farms, and the acceleration of the process of improving the structure of peasant farms and farm production specialization,
- 2) Concentration of investment outlays on tasks with decisive influence on the further development of agriculture, especially reclamation, supplying agriculture and rural areas with water, fodder economy, and the construction of livestock buildings, especially that which will increase the number of stalls for cows,
- 3) Increasing the number of head of cows and the number of sows, in order to maintain the further rise in livestock production,
- 4) Utilization of local sources of fodder production, especially grasslands, and the better adaptation of the fodder quality and structure to the needs of rational livestock nutrition,
- 5) Expansion of the range of production services to agriculture, with particular attention to the upgrading of complex services to support the process of the intensification of production on private farms and of the effective inculcation of technological progress,

6) upgrading the effectiveness of utilization of the resources possessed by the socialized economy, especially state farms, and increasing the share of these farms in marketable production of foodstuffs;

7) supporting private farms which obtain good production results and specialized farms with high marketable production, for example, by improving the supply of the means of production, like: tractors, farm machinery, fodder, mineral fertilizers, building materials, and the like and insuring the necessary credit assistance;

8) linking fodder deliveries from state resources for various sectors of agriculture to production tasks and the procurement of animal products and grain.

3. It is envisaged that the net value of final production in agriculture, compared to the 4-year mean, will increase by 7.3 percent; total production will increase by 5.8 percent, including a 6.3-percent rise in crop production and a 5.1-percent rise in livestock production.

4. The production of the basic farm products should reach the levels indicated in [Table 3, next page].

5. The procurement of the basic crop and animal products should achieve the following levels: [Table 4]

(1) Wysocegarnienie	Jednostka (2) miary	1978 r.	Wskazniki (3) 1978 1977 p.w.
a) Zboża ogółem	h) tys. ton	5.800	126,1
b) Buraki cukrowe	h) tys. ton	18.000	110,4
c) Zwierzę pacholizowane na mięso	h) tys. ton	2.493	111,4
d) Mleko	j) mln l	10.000	101,7
e) Jaja	k) mln szt.	3.100	101,6
f) Owoc	l) tys. ton	1.100	119,6
g) Warzywa	h) tys. ton	1.500	120,0

[Key]

(1) Itemization	(d) Milk
(2) Unit of measure	(e) Eggs
(3) Index 1978/1977 expected fulfillment	(f) Fruits
(a) Total grain	(g) Vegetables
(b) Sugar beets	(h) Thousands of tons
(c) Slaughter animals calculated in terms of meat	(j) Millions of liters
	(k) Millions of units

Table 31

(1) Wybrane gospodarstwa		Jednostka (2)miary	1978 r.	Wskazniki (3)1978 1977 p.w.
z	h			
<b>a</b>	<b>Produkcja roślinna:</b>			
<b>b</b>	<b>Zboża ogółem</b>	v) tys. ton	22.100	117,2
<b>c</b>	<b>Buraki cukrowe</b>	v) tys. ton	18.000	119,4
<b>d</b>	<b>Oleiste</b>	v) tys. ton	780	109,9
<b>e</b>	<b>Ziemniaki</b>	v) tys. ton	45.000	107,2
<b>f</b>	<b>Populacja zwierząt według</b> <b>stanu na dzień 30.VI.:</b>			
<b>g</b>	<b>Bydło ogółem:</b>	w) tys. szt.	13.300	103,2
<b>h</b>	w tym: krowy	w) tys. szt.	6.050	103,7
<b>i</b>	<b>Tworza chlewna</b>	w) tys. szt.	21.000	101,7
<b>j</b>	w tym: małpy	w) tys. szt.	2.200	101,6
<b>k</b>	<b>Owoce</b>	w) tys. szt.	6.200	103,8
<b>l</b>	<b>Produkcja zwierząca:</b>			
<b>m</b>	<b>Zwierzę ogółem</b>	v) tys. ton	4.320	108,8
<b>n</b>	w tym: wieprzowy	v) tys. ton	2.210	111,5
<b>o</b>	wędzony	v) tys. ton	1.380	104,0
<b>p</b>	drobny	v) tys. ton	495	108,9
<b>q</b>	<b>Wisko</b>	x) min. l.	17.100	101,0
<b>r</b>	<b>Wełna</b>	y) tons	13.200	108,2

[Key]:

### (1) Itemization

## (2) Unit of measure

### (3) Index 1978/1979 anticipated fulfillment

(a) Total production:

(b) Total grain

### (c) Sugar beets

(d) Oleaginous crops

**(e) Potatoes**

(f) Head of cattle according to condition as of 30 June:

(g) Total cattle (h) Cows in (g)

(j) hogs (k) sows in (j)

(c) Milk

(m) Sheep (n) Milk

#### (n) Livestock production:

(p) Total animals for slaughter

breakdown: (q) Hogs (r) 0

6. The supply of the basic means of production to agriculture should be structured as follows:

1) deliveries of fodder from state resources in marketing year 1977-1978 should reach 9.3 million tons,

2) deliveries of mineral fertilizers should reach 4,075,000 tons pure component, including 1.4 million tons of nitrogen fertilizers, in addition to 45,000 tons above and beyond the plan; 1,025,000 tons of phosphorous fertilizers, and 1.65 million tons of potassium fertilizers. This will make it possible to increase the application of mineral fertilizers per hectare cropland this marketing year 1977-1978 to 214 kilograms, which means an increase of 11.8 percent.

3) the value of deliveries of tractors, machinery, and farm vehicles for agriculture should be about 5 percent higher. Tractor deliveries should total 57,650 units, in addition to 3,700 Bizon grain combine-harvesters, 1,000 sugar-beet combine-harvesters, 3,200 potato combine-harvesters, and 11,000 farm vehicles. This will improve the supply of the means of production also to private agriculture by increasing the market sales of tractors to 33,000 units and of machinery and technical equipment making it possible to step up the level of mechanization of heavy and labor-intensive work on farms,

4) rural market deliveries of basic building materials from the production of socialized units should reach at least the following levels: 5.7 million tons of cement, which means a 12-percent increase; 800,000 tons of construction lime, which means a rise of 17.6 percent; 4.32 billion walling components, which is an increase of 11.3 percent; 298,000 tons of metallurgical goods, and 676,000 cubic meters of lumber.

7. In forestry the following tasks will be carried out to insure a rise in the productivity of the forest economy:

1) forestation and artificial reforestation of more than 101,000 hectares in area, including state forests on 70,000 hectares,

2) cultivation measures in tree stands on an area of about 583,000 hectares,

3) afforestation of the country by planting 11.5 million seedlings,

4) extraction of 24.8 million cubic meters of timber, including 22.3 million cubic meters of heavy lumber.

## C. Construction

1. One of the basic tasks in agriculture is the implementation of the tangible program of construction-installation projects, especially with regard to investments to be completed in 1978, while insuring the concentration of work in housing construction and on installations related to the implementation of the food program. In order to carry out these tasks in full, the following should be assured:
  - 1) shifting of essential production potential of the construction industry from certain continued investments to the execution of housing construction and construction for the food program,
  - 2) full, rhythmic deliveries of the means of production for the construction industry from other sectors of the economy,
  - 3) proper preparation of building sites for new investments and their timely transfer by the investors and local bodies of the state administration to the construction enterprises,
  - 4) upgrading of the organization of work and improvement in the quality of contracting, particularly in housing construction,
  - 5) adaptation of the construction industry's production capacity to the tasks stemming from the investment program in the territorial breakdown,
  - 6) attainment of improvement in the effectiveness of management, for example through improvement in the organization of work on the building sites, rational management of materials, and, especially, the reduction of the consumption of cement, steel, and lumber per production unit, and the better utilization of construction equipment and vehicles,
  - 7) on the basis of a modified self-financing system, the introduction of new work standards in the construction industry to favor improved effectiveness in the management of the means of production, especially the reduction of the consumption of materials and the rise in the direct effects of construction in conjunction with improved quality.

## D. Transport and Communications

1. A basic task of transport and communications is the achievement of the better satisfaction of the national economy's and the population's needs for the transportation of freight and passengers and for services in the realm of communications. These tasks should be carried out through the rationalization of transport, further progress in operating technique and organization, better use of technical resources, and the further development and technical modernization of transport, especially railway transport, and communications.

2. Freight shipments in public and sector transport, excluding sea transportation, should total 1,643,000, which means an increase of 6 percent, 485 million tons of which will be in standard-gauge railway transportation and 1,087,000 tons of which will be carried by motor transport set up in the enterprises.

3. The carriage of passengers in public transportation should read 3,549,000, including the transport of 1,169,000 passengers by rail and 2,368,000 passengers by motor transport. Here there should be better regularity in the running of passenger trains and busses, the quality and efficiency of passenger service, and better handling of employees commuting to work to the large urban-industrial centers.

4. In investment activity in railway transportation expenditures should be concentrated on the trunk lines linking Silesia to the basic economic centers of the country, on the electrification of the railway lines, and on the construction of the line between Katowice and Hrubieszow. About 300 kilometers of train line should have electricity installed, to bring the level up to about 6,600 kilometers of electrified line. Some 168 electric locomotives and 281 diesel locomotives should be put into operation, along with 12,800 freight cars. The modernization of railway traction should limit the proportion of steam locomotives in freight transport to 11.2 percent, and the share of steam locomotives in passenger traffic to 17.2 percent. There should be a continuation of the modernization and expansion of the railway network, junctions, and stations, as well as repair work to insure that the technical state of the roadbed is improved.

5. Improvement should be achieved in the organization of railway transport, and efforts should be made to take maximum advantage of transport potential, by accelerating the turnaround of cars and locomotives.

6. Work should continue to modernize and expand the system of railways and to achieve an improved roadbed technical level as the result of repairs.

7. In motor transport, improvement should be insured in the utilization of equipment, for example, through the better organization of forwarding, improvement in the technical conditions of the equipment, the use of capacity, the elimination of empty runs, and an increase in mechanized handling.

8. In air transport, efforts should be made to develop foreign transport and to upgrade domestic transportation.

9. The development of maritime shipping should correspond to the needs of foreign trade and provide for an increase in the positive balance of maritime transport service to put it further in the black. Freight

shipping by the merchant fleet should approximate 38 million tons. In the seaports provision should be made to handle about 65 million tons of freight, which means an increase of 5.9 percent.

10. Provision should be made for the further development of communications. The telephone exchange capacity should be increased to about 100,000 numbers, and the number of subscribers should increase by at least 80,000. The value of communications services should reach 26.3 billion zlotys, which means a rise of more than 8 percent.

#### IV. Factors and Means of Implementing Plan Tasks

##### A. Employment and Improvement in the Quality of Work

1. In view of the worsening shortage of labor stemming from the declining supply of labor resources, the basic task in the realm of employment is its rationalization, improvement of the quality of work, and effective use of working time of both man and machine. By making rational use of personnel, employment should be increased in agriculture and in the crafts and services. There should also be rational management of the payroll fund.

2. The following administration of the rise in the labor supply in the national economy through the following expansion of employment is envisaged:

- 1) by 44,000-55,000 persons in the socialized economy,
- 2) by 50,000 to 60,000 persons in handicraft-contract work [cottage industry] and agency work,
- 3) by 40,000 to 50,000 persons in the crafts and trades and in other individual services,
- 4) by 60,000 to 70,000 persons in agriculture.

The total rise in employment in the national economy will amount to between 190,000 and 235,000 persons.

3. It is envisaged that as the result of the improvement in the organization of work and the rise in technical development, the labor productivity in factories should rise by at least 6.7 percent, and in construction and installation enterprises, by 8 percent.

4. Actions to insure the following should be continued:

- 1) further progress in the rationalization of employment,
- 2) creation of conditions favorable to a rise in employment outside the socialized economy, especially the crafts and trades and in service activity, as well as in private agriculture.

- 3) bolstering of work discipline, both in the sphere of material production and in the sphere of nonmaterial production, and the further strengthening of attitudes of professional and social commitment on the part of the working forces,
- 4) proper course of vocational adaptation of newly hired employees,
- 5) restoration of the proper rank of the issues of the standardization and organization of work as instruments for the rationalization of the administration of the payroll fund and employment.

### B. Investments

1. In keeping with the directions of the economic maneuver as defined in the resolutions of the Fifth and Ninth Plenum of the PZPR Central Committee, in investment activity priority should be insured for those investments related to the development of the food economy and those for housing construction, and efforts should also be made to expand the scope of modernization investments, especially those providing for a rise in market and export production. Particular attention should be given to assuring conditions for the completion of planned targets for projects to be completed and signed over for use in 1978 and during the first quarter of 1979.
2. The total sizes of investment expenditures in the national economy are projected to amount to 621.7 billion zlotys, including 568.4 billion zlotys of investment expenditures in the socialized economy.
3. It is envisaged that on the scale of the national economy the following amounts will be allocated to these major areas of investments:

	Billions of zlotys
<b>Total expenditures</b>	<b>621.7</b>
breakdown:	
Housing construction and municipal economy	139.1
Food economy -- agriculture and food industry	121.9
Power and raw-materials economy	119.4
Processing industry	117.1
Transportation and communications	52.2
Science, education, culture, public health, and tourism	26.2

4. It is anticipated that the following major installations will be completed and signed over for use:

Child Health Center of the Pomnik Hospital in Miedzylesie, part General Hospital in Zlotoryla, with 353 beds, four 200-megawatt power units at the Rybnik II and Jaworzno electric power plants, forge department with a production capacity of 33,000 tons of forgings per year at the Rotary Machine and Mining Clay Factory,

Rolling mill with a production capacity of 1.2 million tons per year at the Katowice mill,  
Cold-rolling mill with a production capacity of 400,000 tons per year at the Lekin mill,  
Completion of the expansion of the plant with a production capacity of 8,000 combine units per year at the Harvest Machine Factory in Plock,  
Completion of the expansion for production capacity of 41 million units per year at the Iskra Ball Bearing Factory,  
Welding shop with a production capacity of 140,000 chassis per year at the Passenger Car Factory in Warsaw,  
Heavy soda plant with a production capacity of 460,000 tons per year at the Inowroclaw Soda Plants,  
Gdansk cementworks, with a production capacity of 2.4 million tons per year,  
Meat plant in Opole, with a production capacity of 57,000 tons of meat and meat products per year,  
Refrigeration plants in Elk and Grudziadz with a total storage capacity of 124,400 cubic meters,  
Poultry plants in Poznan and Torun with a total production capacity of 39,000 tons of slaughtered poultry per year,  
Milk plants in Gdansk and Szczecin with a total processing capacity of 144 million liters of milk per year,  
Ship-building department at Szczecin Polytechnic,  
Department of Food Industry Machinery and Equipment at the Bialystok Polytechnic,  
Student dormitory with 880 places in the academic city in Krakow.

5. In keeping with the resolution of the Ninth Plenum of the PZPR Central Committee, in the planned investment activity we expect to introduce a special savings drive leading to a reduction in costs and outlays, mainly through the inculcation and exploitation of thrifty solutions and designs, decisions not to build certain installations, especially subsidiary ones, and the reduction of the costs of equipping installations, the substitution of cheaper materials, and so on.

#### C. Supply and the Material Economy

i. A basic condition for the successful implementation of the tasks defined in the plan is further progress in rationalizing the consumption of raw materials and other materials, especially by reducing their consumption per unit product through technological changes and technical progress. To this end provisions should be made to reduce the consumption of fuels and energy, steel and nonferrous metals, lumber and wood-like materials, cement, and other building materials per unit of product. Improvement in this area should be achieved, for example, by verifying standards and norms for the consumption of materials and raw materials with adaptations to current technology and by carrying out thrift programs.

2. It is also necessary to have a closer relationship between the research and development tasks of science and technology, especially those of the scientific-research institutes and the design and construction bureaus, on the one hand, and the needs for rational management of raw materials and other materials, fuels, and electric power, on the other.

3. Improved effectiveness of managing raw materials and other materials should insure a decline in the share of material costs in industry in the value of the sales of goods of direct production and services, which decline should be at least 1.8 percent, and in construction the decline in the share of the value of total turnover devoted to such costs should be 0.8 percent.

4. The rise in stocks in the basic branches of industry should not exceed 0.68 percent per 1 percent rise in the value of sales calculated in sale prices, and in construction, 0.90 percent in relation to basic production.

5. The implementation of these tasks requires the following:

1) increasing the role of material balance-sheets, and also that of the responsibility of the economic units at all levels for the execution of these balance-sheets; it is also necessary to step up discipline in the execution of agreements and contracts for the deliveries of materials and raw materials,

2) inculcation of new material-saving technologies and designs on a broad scale in production,

3) that the economic units at all levels and the local bodies of the state administration undertake tasks concerning the broader utilization of reserves in materials management, the bolstering of conservation regulations in the consumption of electric power, the basic fuels, and raw materials and other materials, in keeping with programs for the improvement of materials management, and also the maintaining of the level of reserves in keeping with the sizes established by norms.

4) achievement of improvement in quality, a reduction in defects, and a substantial increase in the share of goods of higher quality grades,

5) consistent implementation of a program for the recovery and management of tailings and secondary raw materials, and especially of the plans for the collection of scrap metal and waste paper.

#### D. Foreign Economic Cooperation, Integration

1. An important factor helping in the implementation of the tasks of the country's socioeconomic development is foreign economic cooperation, especially with member countries of the Council for Mutual Economic Assistance.

Economic cooperation with the Union of Soviet Socialist Republics will be particularly important, creating the basis for the comprehensive resolution of the key problems and therefore insuring our country's successful development. The development of this cooperation should be conducted to an ever broader extent on the basis of multiyear programs which take into account coproduction and specialization for the basic areas of industry, as well as scientific and technical cooperation.

2. Further progress in deepening socialist economic integration should be assured through the following:

Execution of obligations related to Poland's participation in the expansion of the fuel and raw-materials extraction capacity in the USSR, in order to insure larger deliveries of them for our economy,

Implementation of the bilateral and multilateral understandings and agreements we have made with member countries of CEMA in the realm of production specialization and coproduction; the value of the deliveries resulting from carrying out production specialization and coproduction agreements will represent about 22 percent of all commodity turnovers with these countries,

Active participation in the preparation of multiyear directional programs of CEMA cooperation in order to assure for a period of many years increased deliveries of fuels and raw materials for our economy and to provide for the more effective structuring of trade exchange in commodities of the processing industries.

Particular attention should be paid to cooperation with CEMA member countries in resolving the problems of the food complex and in improving domestic market supply.

3. In cooperation with the countries belonging to payments area II [capitalist countries], efforts should be made to expand coproduction agreements and Polish export based on long-standing foundations.

4. In cooperation with the developing countries efforts should be made on the basis of multiyear agreements to expand our share in implementing programs for the development of these states through deliveries of capital goods and services, in connection with imports of commodities which are essential to our economy.

## E. Foreign Trade

1. A basic task of foreign trade is the further development of international exchange, in order to obtain raw materials and other materials for the production needs of industry and other sectors of the national economy, machinery and modern equipment for implementation of the investment program, as well as the expansion of an assortment of market goods.

2. Conditions should be created for the further activation of export and the maximum expansion of its dimensions through the exploitation of all untapped reserves for the development of export production, and the emphasis should be on improving its quality and attaining world standards, while at the same time reducing imports to the absolute essentials. Efforts should be made to expand the share of production devoted to goods of low import intensiveness. In carrying out these tasks we should flexibly utilize changes in the market situation on foreign markets, in order to expand the effectiveness of turnovers.

3. The value of the exports of the goods of the construction industry and services will reach a level of about 51 billion foreign-exchange zlotys, which means an increase of 9.9 percent. It is envisaged that the value of imports of the construction industry and services will reach about 55 billion foreign-exchange zlotys, which means an increase of 4.2 percent.

#### F. Science and Technology

1. The execution of the plan's tasks should be based to a greater extent on the use of domestic scientific and technical accomplishments. The basic task of science and technology is the expanded effectiveness of activity in scientific research, development, and applications.

2. Research and development should be concentrated on the elaboration, preparation, and inculcation of new technical, economic, organizational, and other solutions stemming from government research and development programs and key problems. This work should be tied in with the plan targets concerning improved market supply, greater export effectiveness and the rationalization of import, housing problems, the problems of the nation's nutrition and public health, and the rationalization of the consumption of materials, raw materials, energy and power, and the improvement of the quality of the goods produced.

3. In order to achieve high, lasting effects from the licensing purchased for new products, technology, and designs, the scientific research and development agencies should work for their further improvement and development, and should also prepare new technical solutions which are an essential element to eliminate excessive imports.

To a great extent we should take advantage of the results of the work carried out under the auspices of government research and development programs and key and ministry-subbranch problems, bringing into production the new technical and technological solutions which should provide important effects for the national economy.

4. We should expand multilateral scientific and technical cooperation with foreign countries, especially the USSR and other CEMA members, as an important factor in expanding our own creative achievements.

5. It is envisaged that the financial resources for the execution of research and development work will total about 37 billion zlotys. Within the framework of the scientific research and development work, the inculcation of 307 major new items, and organizational and technological methods and their introduction into production are anticipated.

#### 6. Quality, Standardization, Metrology

1. In expanding the production designated to meet the needs of export and our country, the following should be done:

Ensure an improvement in the quality of goods produced to suit the demands of the foreign and domestic market, thereby eliminating the losses incurred through improper production quality,

Inculcate and develop a uniform state system of qualification of grades and designation of goods; the number of items marked with quality designation "Q" should be increased to 1,025, which means by 24.2 percent, and those marked with the designation "1" should be increased to 20,695, which means an increase of 8.6 percent.

2. Standardization activity should be expanded and improved, especially in the sphere of its influence on technological discipline, and rational foundations should be created for the assessment and receiving of goods.

3. In connection with the modernization of the technical-economic base of industry and the increased degree of mechanization and automation, the following should be done:

Metrological work should be focused on mastery of new measurement techniques and methods,

The control-measurement base of industry should be adapted to the needs of assessment of quality grade designation and the qualification of goods both in interoperations control and in acceptance control.

#### II. Improvement of the System of Planning and Management

Further progress should be made in upgrading the system of national economic functioning and planning, particularly through the following:

1. Bolstering the role of central planning in the ongoing steering of the country's development, improvement in planning methods at all levels, with particular attention to see that there is a closer relationship between the plan's indices and the tasks for improving management effectiveness; bolstering the system of the central balancing of tasks and resources and the discipline for executing balance-sheets, improved steering of foreign trade, domestic trade, investment activity, the management of raw materials and other materials, and wages and employment.

2. Improving the self-financing system and the functioning of economic organizations; broadening the scope of application of the modified self-financing system to include other economic organizations and ministries in industry; drafting and beginning to inculcate the new self-financing system in construction and agricultural units,

3. Improving the system of planning and financing economic activity in voivodships and parishes; expanding the effectiveness of operation and responsibility of the voivodship governors for the proper socioeconomic development of the voivodship,

4. Upgrading the state statistics system.

## V. Socioeconomic Development of the Voivodships

A basic assumption of the socioeconomic development of the voivodships is the continued execution of tasks and goals delineated in the five-year plan for 1976-1980, while at the same time priority is given to the directions implied in the resolution of the Ninth Plenum of the PZPR Central Committee.

The major directions of socioeconomic development of the voivodships should be the further expansion of productive forces and the attempt to make the best possible use of them, intensification of farm production, upgrading of investment processes, bolstering of money-market balance, and further progress in rationalizing employment while at the same time increasing market deliveries of goods and services for the population, using local reserves as the basis for instances of initiative on the part of the population and volunteer projects, alongside substantial improvement in management effectiveness in all areas of economic and social life.

In all voivodships there should be further improvement in the population's living conditions in both urban and rural areas.

1. Provision should be made for a rise in industrial production first of all as the result of improved labor productivity based on managerial and technical-economic progress, coproduction improvements and specialization, alongside the effective mobilization of plants as the result of investments carried out in keeping with the plan.

In the structuring of industrial production in each voivodship, certain priorities should be insured in particular for the purpose of an increase in market production adapted to local needs as well.

In all voivodships efforts should be redoubled to develop local production of building materials, making broad use of local raw materials.

2. The basic task in agriculture is the intensification of crop and livestock production, in order to permit improved supply of foodstuffs to the population.

Efforts aimed at full development and utilization of farmland and a substantial increase in grain and fodder production should be continued along with the development of combined forms of development and the support of the development of specialized farms.

Tasks in the realm of the development of agriculture should be adapted to natural and socioeconomic conditions of the various regions, with special attention to the need for production specialization and appropriate distribution of the means of production.

3. There should be provision for improvement in the item-assortment structure of production and deliveries of goods to the market adapted to the population's growing income and the needs of the individual areas and also for improvement in commercial service and expansion of the network of retail stores.

4. An important task for all voivodships is the assurance of further development of services to the population through the better use and expansion of facilities rendering services to the population, equipping them with premises, machinery, equipment, and materials, and, especially, providing the necessary expert personnel to staff them, and also at the same time improving the functioning of these facilities. Conditions should be created for the further development of the crafts and trades, especially by providing for the allocation of premises for this purpose and supplies of materials.

5. Better conditions should be created to carry out the housing construction programs by preparing for land development sooner and by making fuller use of material and production reserves. There should be further real improvement in the quality of the housing built and better management of housing resources.

6. Further improvement in the population's health should be achieved through the completion of new hospitals and accelerated modernization and renovation of installations already in existence. An important source of improvement should be the more efficient functioning of all treatment facilities, with attention given especially to the conclusions stemming from the review of health service facilities conducted in 1977. In particular, the use rate of beds in hospitals and medical apparatus on hand should be increased.

7. Undertakings to protect the natural environment should be focused mainly on urban-industrial centers, investment outlays being directed first of all to the construction and expansion of municipal and industrial

waste treatment plans and equipment to protect the air from excessive pollution.

8. In the sphere of investment activity, in keeping with the basic assumptions of the economic maneuver, there should be cooperation in carrying out the preferred directions of investment, with special attention focused on tasks related to land development for housing construction and the maintenance of investment-cost discipline while providing for the timely completion of installations which are to be signed over for use during the year.

9. There should be assurance that the voivodship people's councils will have a greater influence on the shaping and implementation of the socioeconomic plan and the budget of the voivodships.

#### VI. Final Provisions

1. The Sejm of the Polish People's Republic authorizes the Council of Ministers to:

1) establish the tasks and resources of the plan for the various individual ministries, other central economic units, and voivodship offices,

2) during the year, in the event of economically justified need, make changes in these tasks and resources, while maintaining the basic ratios of the plan.

2. The Sejm of the Polish People's Republic charges the Council of Ministers with providing for the execution of the tasks contained in this resolution.

Marshall of the Sejm: ... Gucwa

10790  
CSO: 2600/190

POLAND

CURRENT SHIP STATUS OF POLISH STEAMSHIP COMPANY LISTED

Warsaw MORZE in Polish No 2, Feb 81 pp. 11-13

[Article by Jerzy Micinski: "Polish Steamship Company Fleet"]

[Text] Despite numerous difficulties and setbacks which did not spare it last year, 1980, the Szczecin shipowner, emerged quite well from all its problems and greatly exceeded the plan in all basic indicators. A positive foreign-exchange balance for 1980 exceeding 1.1 billion foreign-exchange zlotys, a clean slate in the area of indebtedness to the State, (it had been 15 billion zlotys, and was completely paid off by PZM [Polish Steamship Company] by the end of 1980), and pre-schedule settlement of foreign-exchange obligations abroad are only some of the positive aspects with which the Szczecin shipowner is entering the year of its 30th anniversary.

This is undoubtedly the effect of energetic and efficient fleet management. In the second half of last year, in the face of the derangement of our national economy, our tramp service had to be reassigned to other kinds of service. For example, the export of coal by sea collapsed, its purchase had to be abandoned, and thus the planned shipment of a number of raw materials and other goods also had to be abandoned. PZM ships were assigned to transporting fodder from Brazil and the Gulf of Mexico, but this did not not completely resolve the situation. Therefore shipping services were offered to foreign contractors and a satisfactory number of beneficial contracts was found. This was the first time that our tramp fleet had earned so much foreign-exchange on the foreign freight market, obviously with considerable benefits for the shipowner and the country.

However, it would not have been so easy nor so possible on such a large scale if the PZM had not had available a suitable, modern fleet composed of ships of all necessary sizes and not more than 6.5 years old on the average. And now we come to the changes in the possessions of the Szczecin shipowner during 1981. This was a "fat" year, because only now did the realization of the famed "contract of the century" with the British shipyards begin to gather momentum (on the basis of 100 percent). After delays and difficulties in 1979, last year saw the achievement of the rest of the order. The PZM

was augmented by 14 "brand-new" ships, which produced a considerable effect visible to the naked eye, after the modernization achieved in 1979 with the consignment of the rest of the old steamships to scrap.

In the bulk cargo ship group defined as "16,500" deadweight, four more "kopalnia"-type ships were added in 1980 to the three from 1979 (traditionally referred to as medium-type tramp ships in the PZM). On 8 February the KOPALNIA GOTTWALD went into service, and then the following ships were put into operation: KOPALNIA MYSLOWICE (entered service 9 March 1980), KOPALNIA SIERSZA (28 March 1980) and KOPALNIA MIECHOWICE (7 May 1980), ending the series.

The group of smaller bulk cargo ships with a 4,400 ton deadweight, numbering five units at the end of 1979, was increased last year by ten more ships, the names of which brought satisfaction to successive cities (some for the first time), fighting mightily for the prestige of having a namesake at sea. These were in order: CHORZOW (went into service 31 January 1980), GOLENIOW (7 February 1980), LOMZA (24 March 1980), MALBORK II (25 March 1980), MIELEC (29 March 1980), WIELUN (20 May 1980), ZGORZELEC (11 June 1980), WARKA (18 June 1980), BYTOM (10 July 1980) and KOSCIERZYNA.

The latter, finishing the series of ships, has not yet been put into operation as we are writing these words (middle of December 1980). This happened because it was held as a sort of "hostage" by workers at the Robb Caledon shipyards in Dundee. The deadline for putting the KOSCIERZYNA into operation had been set for September, after which the shipyards threatened to close because of the lack of more orders. The trade unions of the British shipbuilding industry therefore recommended that the crews keep working on the ships present there until the factory received more orders. The Robb Caledon shipyards finally received new contracts and the construction of the last ship for the PZM proceeded. In the first half of December the KOSCIERZYNA was to go on its shakedown cruise, and there is reason to think that it will go into service by the end of 1980.

Thus the famous contract with the British will be only a matter for the Polish-British Navigation enterprise and the PZM ship chartered by it until the credit extended has been repaid, in short an unusually beneficial transaction for our national economy. Here we should express our great sorrow that, because of so-called decision-makers, an identical full-credit contract with foreign shipyards for another 15 ships, settled to the last detail by the PZM, did not go into effect in the second half of the 1970's. This is even more regrettable because at present all contracts with domestic shipyards have run out, and if something is to be done in this matter, and it must be, the PZM can count on new units of Polish construction no sooner than 1983! There is a similar situation in the Polish Ocean Lines. No comment...

At the present time the Szczecin shipowner has no ships in construction abroad nor any contracts already signed. Recently a contract was signed

[sic] with a British shipyard in Sunderland to construct a 76,000-ton ship and three 26,000-ton ships. These are to be ships representing a revolution from the propulsion viewpoint: turbine ships with coal-fired boilers. Naturally these will be modern boilers without stokers and trimmers, based on conveyor-belts and automation. The British have already become outstanding by some practical achievements in this field. According to preliminary evaluations these ships will be somewhat more expensive than conventional ones driven by diesel oil. The difference in price will be made up in a relatively short time, despite the fact that relatively more (approximately 2.5 tons instead of 1 ton of liquid fuel) coal will be consumed, but this is many times cheaper. We also have our own coal, in contrast to crude oil. The return of coal to maritime routes has already been pointed out in the columns of MORZE and we shall soon return to this interesting subject.

We must still mention the decreases in the PZM stock in 1980. Three ships were sold during the year. The two most important were 50,000-ton ships of domestic construction of the B-521 type: POLITECHNIKA SZCZECINSKA (built in 1972) and POLITECHNIKA SLASKA (built in 1974). They passed into the ownership of a shipowner from Hong Kong, the first changing its flag in February and the second in June of last year. The sale occurred in connection with the need of making some urgent foreign-exchange settlements of accounts. The third ship sold was the next all-purpose motorship from the not very successful KOLEJARZ series (B-512). It was the WŁOKNIARZ (built in 1966), which left the Polish flag in February last year. Thus only five ships of the B-512 series remained under the flag of the PZM shipowner. They are expected to be gone within a short time.

Finally we come to the SOLDEK (built in 1949). This last of the Mohicans coal-fired steamships is leaving when efforts are being made to reinstitute coal as fuel for PZM ships. Still, the veteran only held its position until the end of 1980 and, on 16 December last year, it left Szczecin with 2,200 tons of stoking coal for Odense in Denmark on its 1476th high seas voyage, its last one. It is still to operate for some time on the Swinoujcie-Szczecin route as lighterage of the "panamax"-type bulk cargo ships, but that will be all. The SOLDEK will have to be sold for scrap or preserved as a ship museum. The fate of the veteran is in the balance. Szczecin does not seem to have the financial resources to form a Social Committee making it possible to preserve the ship as a museum building at the Walach Chrobrego dam. On the other hand the Central Sea Museum in Gdańsk is waiting for the SOLDEK, because it wants to moor it at Motlawa, right next to the shipyards which built it 32 years ago as the first high-seas ship in our modern history. A decision is to be made within a very short time.

## PZM Fleet (as of 1 January 1981)

Note: In this treatment we are giving the total length, the power of the engines in kW (kilowatts) (and in KM (horsepower)), and the operating speed with a cargo. With the individual names we are presenting the year of construction, the capacity in BRT (gross registered tons) and the dead-weight.

### A. Our Own Ships

Tankers for crude oil. Mitsubishi Heavy Industries, Ltd in Yokohama (Japan), length 293.0 m, 21,325 kW (29,000 KM), 16.3 knots.

CEANTORIA	75	81,197	146,110
SOKOLICA	75	81,197	145,649
ZAWRAT	75	81,196	144,892

Tankers for crude oil. Howaldswerke-Deutsche Werft in Hamburg (FRG), length 283.9 m, 17,647 kW (24,000 KM), 15.5 knots.

GIEWONT II	75	70,668	137,160
KASPROWY WIERCI	74	70,671	137,160
RYSY II	75	70,667	137,160

Bulk cargo ships of the "panamax"-type, Mitsubishi Heavy Industries, Ltd in Kobe (Japan), length 232.4 m, 10,294 kW (14,000 KM), 14.5 knots.

BELCHATOW	76	39,309	71,277
TUROSZOW	77	39,319	71,411

Bulk cargo ships of the "panamax"-type, eks-Norweskie. Mitsubishi Heavy Industries, Ltd in Kobe (Japan), length 224.0 m, 10,294 kW (14,000 KM), 14.6 knots.

HUTA KATOWICE	76	36,229	64,485
HUTA LENINA	76	36,232	64,337

Bulk cargo ships of the B-521 type (prototype). Shipyards named for the Paris Commune in Gdynia, length 218.4 m, 11,261 kW (15,300 KM), 15.4 knots.

MANIFEST LIPCOWY	70	32,758	55,596
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Bulk cargo ships of B & W, Burmeister & Wain in Copenhagen (Denmark), length 218.8-219.0 m, 10,735-11,029 kW (14,600-15,000 KM), 15.5 knots.

UNIWERSYTET GDANSKI	74	30,242	52,020
UNIWERSYTET JAGIELLONSKI	71	30,380	52,000
UNIWERSYTET TORUNSKI	72	30,372	51,300

UNIWERSYTET WARSZAWSKI	74	30,248	52,020
UNIWERSYTET WROCŁAWSKI	74	30,244	52,020

Bulk cargo ships of the B-591 type, Shipyards named for G. Dymitrov in Varna (Bulgaria), length 201.2 m, 8,824 kW (12,000 KM), 16.5-17.0 knots.

GENERAL BEM	74	23,307	37,844
GENERAL JASINSKI	74	23,294	37,764
GENERAL MADALINSKI	75	23,298	37,844
GENERAL PRADZYNSKI	77	23,305	37,844
GENERAL ŚWIERCZEWSKI	73	23,329	37,844

Bulk cargo ships of the B-517 type, Shipyards named for A. Warski in Szczecin, length 198.2 m, 8,832 kW (12,000 KM), 15.5-16.2 knots.

HELIKS DZIĘKZYNSKI	78	20,309	33,490
UNIWERSYTET ŚLĄSKI	79	20,301	33,470
WALKA MŁODYCH	78	20,309	33,485

Bulk cargo ships of the B-447 type (two versions), Shipyards named for A. Warski in Szczecin, length 198.4-202.3 m, 8,235-8,824 kW (11,200-12,000 KM), 15.0-16.7 knots.

CEDYNIA	73	20,613	31,910
CZWARTACZ AL.	71	19,691	32,240
MŁODZIAZ	75	20,593	32,000
NARVIK II	73	20,596	31,920
OBRONCY POCZTY	71	19,684	32,196
POWSTANIEC ŚLĄSKI	70	19,677	32,193
POWSTANIEC WIELKOPOLSKI	74	20,593	32,000
STĘKIERKI	72	19,776	32,377
STUDZIANKI	74	20,597	32,000
SYN PIŁKI	74	20,593	31,910
SYBIRIK	72	19,775	32,377

Tankers of the NB-406 type, Oskarshamns Varv A B Oskarshamn (Sweden), length 170.6 m, 8,824 kW (12,000 KM), 15.2 knots.

KARKONOSZE	75	18,251	31,016
PIĘTNY II	74	18,249	31,016
TATRY	75	18,244	31,016

Bulk cargo ships of the "Cetena" type, CRDA San Marco in Trieste and Italantieri in Castellamare di Stabia (Italy), length 190.5 m, 8,835 kW (11,200 KM), 14.5-16.0 knots.

ZIEMIA GDANSKA	66	16,439	24,208
ZIEMIA KIELECKA	68	15,744	26,500
ZIEMIA KOSZALINSKA	68	15,718	26,500

ZIEMIA LUBUSKA	66	16,451	24,160
ZIEMIA SZCZECINSKA	66	16,452	24,170
ZIEMIA WIELKOPOLSKA	67	16,442	26,362

Bulk cargo ships of the "Ziemia" type, Smith's Dock in Middlesbrough (England), length 179.5 m, 7,059 kW (9,600 KM), 15.0-15.5 knots.

ZIEMIA BYDGOSKA	67	15,732	25,501
ZIEMIA MAZOWIECKA	67	15,731	24,490

Bulk cargo ships of the B-470 type, Shipyards named for the Paris Commune in Gdynia, length 187.2 m, 7,059 kW (9,600 KM), 15.4 knots.

ZAGLEBIE MIEDZIOWE	71	16,028	23,785
ZIEMIA KRAKOWSKA	71	16,028	23,792
ZIEMIA LUBELSKA	71	16,028	23,785

Bulk cargo ships of the B-584 type, Shipyards named for G. Dymitrov in Varna (Bulgaria), length 185.1 m, 8,235 kW (11,200 KM), 15.5-16.5 knots.

ZIEMIA BIALOSTOCKA	72	15,643	23,736
ZIEMIA OLSZTYNSKA	73	15,668	23,719
ZIEMIA OPOLSKA	74	15,667	23,720

Bulk cargo ships of the B-520 type, Shipyards named for A. Warski in Szczecin, length 156.4 m, 5,294 kW (7,200 KM), 15.6 knots.

PIESZCZADY	68	10,847	15,680
DOLNY SLASK	67	11,004	15,688
GORNÝ SLASK	67	11,014	15,650
KULAWY	68	11,005	15,626
POMHALA	68	11,014	15,686
ZAGLEBIE DABROWSKIE	67	11,010	15,688

Bulk cargo ships and general cargo ships (all-purpose ships) of the B-512 type, Shipyards named for A. Warski in Szczecin, length 155.8-156.6 m, 4,779-5,294 kW (6,500-7,200 KM), 14.3-15.6 knots.

CHEMIK	65	7,484	12,083
		10,635	13,933
ENERGETYK	65	7,486	12,345
		10,654	14,253
CORNIK	66	7,483	12,310
		10,647	14,245

HUTNIK	65	7,488	12,309
		10,632	14,265
TRANSPORTOWIEC	64	7,453	12,223
		10,629	14,072

Bulk cargo ships of medium range, Schlichting Werft, Lubeck (FRG), length 145.5 m, 5,441 kW (7,400 KM), 15.0 knots.

BUDOWLANY	77	9,267	14,164
HUTA ZODA	74	9,268	14,176
HUTA MIGMONT	77	9,263	14,164
KOPALNIA BOSNOWIEC	74	9,268	14,179
KOPALNIA WALBRZYCH	75	9,266	14,176
KOPALNIA ZOPTOWKA	75	9,268	14,176
HOLNIK	75	9,267	14,176

Bulk cargo ships intended to transport dry sulfur, Astilleros Espanoles S.A. in Santao and Sevilla (Spain), length 144.9-146.7 m, 5,882 kW (8,000 KM), 15.4-16.0 knots.

KOPALNIA GRZYBOW	72	9,225	14,036
KOPALNIA JEZIORKO	71	9,043	13,665
KOPALNIA MACHOW	71	9,206	14,036
KOPALNIA PIASECZNO	71	9,050	13,665

Bulk cargo ships of the "Neoliberty" type, Nakskov Skibsvaerft in Nakskov (Denmark), length 141.8 m, 5,294 kW (7,200 KM), 15.2 knots.

STWICE II	68	8,384	11,720
KOPALNIA KLEOFAS	69	8,406	12,480
KOPALNIA MARCEL	69	8,404	12,480
KOPALNIA MOSZCZENICA	68	8,391	11,780
KOPALNIA SOSNICA	69	8,383	11,700
KOPALNIA SZCZYgłowICE	69	8,407	12,480
KOPALNIA WIREK	69	8,406	11,700

Special tankers for liquid sulfur, Lodose Verf k. Goteborg (Sweden), length 146.2 m, 3,434-3,971 kW (4,670-5,400 KM), 14 knots.

PROFESSOR K. BOHDANOWICZ	74	6,932	9,694
STAROPOL.	74	6,964	9,755
FAIRMOORZEG	73	6,967	9,814
FAIRFLEET STARKOWE	76	6,975	9,783

Bulk cargo ships of the B-522 type (intended for independent navigation in ice), Shipyards named for Lenin in Gdansk, length 109.0 m, 2,500 kW (3,400 KM), 14.0 knots.

EUGENIE COTTON	71	3,810	5,735
KŁODZIEJKI	70	3,809	5,735
NOWY SĄCZ	70	3,809	5,735
TARNOW	70	3,812	5,735

Trade training ship of the B-30 type, Shipyards named for A. Warski in Szczecin, length 121.9 m, 4,044 kW (5,500 KM), 16 knots.

KAPITAN LEDOCHOWSKI	75	5,975	5,510
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Bulk cargo ships of the B-451A type, Shipyards named for G. Dymitrov in Varna (Bulgaria), length 95.9 m, 1,654 kW (2,250 KM), 13.0 knots.

CHRZANOW	68	2,468	3,436
CIECHANOW	70	2,416	3,602
JELCZ II	68	2,468	3,483
KUTNO II	70	2,422	3,619
PIOTRKOW TRYBUNALSKI	69	2,423	3,615
PRZEMYSŁ	70	2,415	3,611
STARACHOWICE	70	2,414	3,610
SUWALKI	69	2,424	3,617
WADOWICE	69	2,423	3,613
WARNA	68	2,467	3,496

Bulk cargo ships (timber carriers) of the B-431 type, Shipyards named for Lenin in Gdańsk, length 81.6-84.3 m, 1,840 kW (2,500 KM), 14.0-14.2 knots.

JAROSLAW	79	1,530	2,726
			2,988
LIPSK NAD BIEBRZĄ	78	1,593	2,980
NIEWIAKOW	78	1,593	2,973

#### B. Ships of the Polish-British Navigation Enterprise (in PZM service)

Bulk cargo ships of the "16,500" type, British Shipyards: Govan Ship-builders, Ltd in Glasgow (4 ships), Smith's Dock, Ltd in Middlesbrough (2), Hebburn Shipbuilding Dock in Newcastle (1), length 158.5-158.8 m, 5,962-5,984 kW (8,100-8,130 KM), 14.8-15.8 knots.

KOPALNIA GOTTLAID	80	10,978	16,733
KOPALNIA JASTRZEBIE	79	11,004	16,653
KOPALNIA MIECHOWICE	80	10,999	16,753
KOPALNIA MYSŁOWICE	80	10,982	16,683
KOPALNIA SIEMIĄNOWICE	79	10,997	16,653
KOPALNIA SIERSZA	80	10,997	16,753
KOPALNIA SZOMBIERKI	79	10,974	16,728

These cargo ships of the "4,400" type, British Shipyards: Govan Shipbuilders, Ltd in Glasgow (9 ships), Robb Caledon Shipbuilders, Ltd in Dundee (3), Ferguson Brothers, Ltd in Glasgow (2) and Ailsa Shipbuilding Co., Ltd in Troon (1), length 94.9-95.1 m, 2,208 kW (3,000 KM), 12.0-13.8 knots.

BOLESLAWIEC	79	2,997	4,390
BYTOM	80	2,992	4,459
CHORZOW	80	2,996	4,361
GNIEZNO II	79	2,996	4,358
GOLENIOW	80	2,996	4,449
KOSCIEPRZYNA	80	2,994	4,460
LOMZA	80	2,996	4,459
MALBORK II	80	2,996	4,461
MIELEC	80	2,994	4,456
MIAWA	79	2,997	4,415
STERADZ	79	2,997	4,361
WARKA	80	2,992	4,451
WTELUN	80	2,993	4,462
WYSZKOW	79	2,997	4,378
ZGORZELEC	80	2,992	4,412

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CURRENT SHIP STATUS OF POLISH BALTIC SHIPPING COMPANY LISTED

WARSZAWA MORZE in Polish No 3, Mar 81 p 10

[Article, no author given: "Polish Baltic Shipping Company"]

[Text] Our youngest coastal shipowner did not register any acquisitions in 1980, unless we count the general cargo ship WODNICA of the "Bajkow" series (B-57), transferred to it by Polish Ocean Lines at the very end of the year. One more such ship will be received by PZB [Polish Baltic Shipping Company] at the beginning of 1981, and this will be the CHOCHLIK. Therefore the number of general cargo ships of the B-57 type belonging to the coastal shipowner will increase to seven. On the other hand the PLO [Polish Ocean Lines] will retain only four of these vessels, all modified for delivery container ships.

The next ship, the ORLA (built in 1959) was sold from the group of small general cargo ships of the "river" series type (B-51/11), reducing their number in the PZB to four vessels. These are all of the 1980 changes with respect to cargo ships.

The group of passenger and automobile ferries was reduced in number by the oldest one of them, the GRYF (built in 1962). In its day this ship initiated ferry navigation under the Polish flag, still in the Polish Steamship Company. The honored GRYF, worthy of attention, was sold to a Greek shipowner after a long stay "in the bush league", and will apparently be used to ship fruits between the islands of the Aegean Sea. Now it is the turn of the SKANDYNAWIA (built in 1964) for which a buyer is being sought. Thus the number of Polish automobile and passenger ferries will be reduced to five which, if it has not been noticed, means a regression in this interesting branch of navigation.

For the sake of completeness we should mention in conclusion that, with respect to the construction of the third series of the B-490 type in Szczecin (expected to be named MASOVIA), the keel will be laid for this ship on 2 January 1981. With respect to the delivery of ten timber

carriers of 1,500 tons each by our river shipyards, silence reigns, indicating one thing: the matter is no longer of current interest.

PZS Fleet (as of 1 January 1981)

Passenger and automobile ferry of the French type, Dubigeon-Normandie, S.A., Nantes (France), length 126.8 m, 11,765 kW (16,000 KM), 21 knots.

ROGALIN	72	7,801	1,250
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Passenger and automobile ferries of the B-490 type, Shipyards named for A. Waraszki in Szczecin, length 127.4-127.6 m, 12,365 kW (16,800 KM), 20.3 knots.

POMERANIA	78	7,414	1,856
SILESIA	79	1,414	1,757

Passenger and automobile ferries of the "posthanseatic" type, Werft Nabiskrug GmbH, Rendsburg (FRG), length 110.7 m, 5,882 kW (8,000 KM), 20 knots and, in another modernized version: 110.2 m, 8,382 kW (11,400 KM), 21.7 knots.

WAŁ...	65	3,801	900
WILANOW	66	4,020	904

Passenger and automobile ferry of the "Hanseatic" type, Gebruder Pot, Bolnes (Netherlands), length 88.2 m, 4,706 kW (6,400 KM), 16.5 knots.

SKANDYNAWIA	64	2,821	550
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General cargo ships of B-57 type, Shipyards named for the Paris Commune in Gdynia, length 65.8 m, 706 kW (960 KM), 11.5 knots.

KOPLANA	59	541	931
		940	1,320
KRASNIA	59	541	910
		940	1,320
NIMFA	61	541	880
		942	1,300
RUSAIKA	61	547	869
		942	1,151
SWIETLIK	61	541	893
		942	1,250

WODNICA	62	497	893
		977	1,284

Timber carriers of the B-475 type, "Wisla" Shipyards in Gdansk, length 59.0-59.8 m, 662 kW (900 KM), 11.5 knots.

BARLINEK	73	807	1,071
HAJNOWKA	71	809	1,075
RUCIANE	72	807	1,066

General cargo ships of the B-475 type (with mechanically ventilated cargo holds), Shipyards named for the Paris Commune in Gdynia, length 60.7 m, 529 kW (720 KM), 11.5 knots.

BOGINKA	64	498	668
DZIWOZONA	64	498	667
NERELDA	64	498	667

General cargo ships of the B-51/11 type, Gdansk Shipyards in Gdansk, length 59.9 m, 500 kW (680 KM), 9 knots.

INA	58	480	686
KRUTYNIA	59	473	675
NER	58	474	686
SOLA	59	474	675

Coastal ship of the Kz-450 type, Wroclaw River Shipyards, length 44.6 m, 224 kW (305 KM), 9 knots.

FLORA	67	299	450
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CURRENT SHIP STATUS OF CHINESE-POLISH SHIP COMPANY LISTED

Warsaw MORZE in Polish No 3, Mar 81 p 11

[Article, no author given: "Chinese-Polish Ship Company SA"]

[Text] "Chipolbrok," originating in 1951 as a ship-brokerage company and popular on the Coast, gradually changed its nature until it became an independent ship owner enterprise in recent years, operating under a new name: Chinese-Polish Ship Company SA. It has its own ship owner symbol (green C and white P on a red band), with more than a dozen ships under the Polish flag and an equal number under the Chinese flag. These ships are employed exclusively in navigation between European (and other) ports and ports of the ChRL [Chinese People's Republic].

At the present time 12 ChPTO [Chinese-Polish Ship Company SA] ships are currently sailing under the Polish flag, with several more under construction. The newest acquisition is the FREDRO motorship, which was put into operation in 1979 (entered service on 25 May 1979). It was built in the Shipyards named for Lenin in Gdansk within the framework of the B-342 series. The next ship from these shipyards, designed especially for the needs of ChPTO, will go into service in September this year. There will be three more similar units by the end of 1983.

Three units from the standard ships of West German construction from 1973-1977 ("36" and "36L" types) are operating in the ChPTO under the Polish flag. Their profiles, snapshots and characteristics were published by us at the time in the column "Under the Polish Flag" (MORZE, Nos. 3 and 4 of 1978). The series of so-called "composers," constructed at the beginning of the 1970's in Yugoslavia and the equivalent of our own 10,000-ton vessels of the MARCELI NOWOTKO type (B-54), has diminished to five vessels. This was caused by the transfer of two ships to the Chinese flag: the WIENIAWSKI in 1977, changing its name to BAOXING, and in 1978 the CHOPIN, with the new name of WUXING. Two 10,000-ton vessels of the B-54 type, the REYMONT (built in 1958) and the KONOPNICKA (1963), tragically ended their service in the ChPTO fleet. The first of these was burned on 16 April 1979 near Bornholm, of which we wrote in detail in MORZE (No. 8/79).

The superstructure burned, causing the deaths of two persons. The wreck was towed to Gdynia, but it was found unprofitable to repair the ship. The REYMONT was consigned to scrap. In the meantime the KONOPNICKA had changed to the Chinese flag and the name of YIXING. Fate brought it to the shipyards in Shanghai, where it burned on 30 October last year. ChPTO workers say that this was its destiny. Some readers certainly recall one of the greatest tragedies along our coast, associated with this ship. It was launched on 17 April 1961 as the 24th 10,000-ton ship built in the Gdansk Shipyards. During the final work on 13 December 1961 a tremendous fire broke out in its engine room, and 21 people perished! There was considerable delay in putting the ship into service, and fire evidently followed it throughout its service....

ChPTO Fleet (as of 1 January 1981)

General cargo ship of the B-342 type, Shipyards named for Lenin in Gdansk, length 169.9, 9,715 kW (13,200 KM), 19.0 knots.

FREDRO	79	8,857	
		12,773	16,698

Standard general cargo ships of the "36L" type, AG "Weser", Seebeckwerft, Bremerhaven (FRG), length 149.8-150.1 m, 6,390 kW (8,690 KM), 16.5 knots.

BOLESLAW PRUS	73	6,750	13,650
		9,784	16,270
LEOPOLD STAFF	77	6,745	13,475
		9,782	16,220

Standard general cargo ship of the "36" type. AG "Weser", Seebeckwerft, Bremerhaven (FRG), length 145.0 m, 5,735 kW (7,800 KM), 16.5 knots.

ADAM ASNYK	74	6,966	12,210
		9,632	15,100

General cargo ship of the "Dlugosz" type (with a heavy boom), Staalskibs-vaerft A.S., Odense (Denmark), length 153.2 m, 5,588 kW (7,600 KM), 16.0 knots.

KRASZEWSKI	63	7,151	12,275
		10,363	14,403

General cargo ships of the "Split" type, "Split" Brodogradiliste in Split, (Yugoslavia), length 152.8-153.4 m, 4,412 kW (6,000 KM), 15.0 knots.

MONIUSZKO	60	6,947	10,523
		9,246	12,666

NOWOWIEJSKI	62	6,552 8,992	10,552 12,699
PADEREWSKI	60	7,230 9,267	10,492 12,666
SZYMANOWSKI	61	7,178 9,203	10,356 12,695
ZAMENHOF	59	6,698 9,191	10,896 13,044

General cargo ships of the B-442 type, Shipyards named for Lenin in Gdansk, length 154.6 m, 7,059 kW (9,00 KM), 18.0 knots.

LUCJAN SZENWALD	71	6,447 10,122	9,681 12,181
Wладислав ОРКАН	71	6,446 10,120	9,681 12,181

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**May 22, 1981**